

## **REMARKS/ARGUMENTS**

Reexamination of the captioned application is respectfully requested.

### **A. SUMMARY OF THIS AMENDMENT**

This Amendment implements some of the same amendments to the specification and claims as was attempted in the Amendment After Final filed on November 17, 2008, for reason that the Advisory Action mailed December 3, 2008 did not indicate whether the Amendment After Final filed on November 17, 2008 was or was not entered.

By the current amendment, Applicants basically:

1. Insert a paragraph into the specification which was omitted from the April 24, 2008 Amendment. This paragraph was originally filed with the application and in the original PCT application [see Remarks section C *infra*].
2. Respectfully traverse the new matter objection alleged under 35 USC §132(a) [see Remarks section B *infra*].
3. Amend claim 25 to moot the rejection under 35 USC §112, second paragraph [see Remarks section D *infra*].
4. Amend dependent claim 15 to remove multiple dependency<sup>1</sup>
5. Add new independent claim 51 and claims 52 - 54 dependent thereon; new independent claim 55 and claims 56 – 58 dependent thereon; new independent claim 59 and new claims 60 – 61 dependent thereon, and new independent claim 62.

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<sup>1</sup> Insofar as the undersigned can determine, Applicants have never been assessed and have never paid a multiple depend claim fee (and do not wish to be charged now). Accordingly, the current amendment should expeditiously and economically resolve the dependency issues of claim 15.

6. Respectfully traverse all prior art rejections [see Remarks section B *infra*].

## **B. TRAVERSAL OF 35 USC §132(a) OBJECTION**

Applicants respectfully traverse the new matter objection alleged under 35 USC §132(a) (see page 2 of the Final Office Action). The amendment filed April 24, 2008 did NOT insert new matter, but rather was clearly remedial in correcting figure number errors (and doing so in a way manifestly supported by the remainder of the original disclosure).

The changes to the specification filed in the 24 April 2008 Amendment involved changes to select figure numerals, i.e., from Fig. 1 to Fig. 5 and from Fig. 2 to Fig. 6. As stated above, these changes to the figure numerals were a correction of formal errors only. For instance, in the paragraph beginning with "For the compressed mode ...", "Fig. 1" has been corrected as "Fig. 5" because it is Fig. 5 that should be referred to. As can be clearly seen from the drawings, Fig. 1 shows a frame structure for uplink DPDCH/DPCCH while Fig. 5 shows a frame structure in uplink compressed transmission. Since the paragraph in question is directed to the compressed mode communication, it is very clear that Fig. 5 (and not Fig. 1) should be referred to. Furthermore, the third sentence in this paragraph, *"The upper slot structure in Fig. 5 designated by the term 'data' forms consecutive uplink UMTS slots (two slots shown) which can be separated by transmission gaps TGs (one transmission gap TG shown) when operated for uplink compressed transmission's clearly corresponds to Fig. 5 and not Fig. 1.*

Essentially the same can be said for the change from "Fig. 2" to "Fig. 6" in the paragraph beginning with *"UMTS downlink communications utilize a different frame structure compared to uplink communications"*. Fig. 2 shows a frame structure for downlink DPCH while Fig. 6 shows frame structure types in downlink compressed transmission. From the third sentence of the paragraph in question, it is explicitly

indicated that this paragraph is directed to "downlink compressed transmission". Hence Fig. 6 (and not Fig. 2) should be referred to. Further, the second sentence in this paragraph, "A frame structure type A (see Fig. 6(a))" proves that Fig. 6 is actually referenced.

In summary, the figure numeral amendments are purely corrections of typographic/formal errors. It is therefore requested that the finding of new matter be withdrawn.

#### **C. CORRECTION OF AMENDMENT ERROR TO SPECIFICATION**

Page 7 of the April 24, 2008 amendment did contain an error which may have been construed to in correctly delete a certain paragraph. Accordingly, it is now respectfully requested that the paragraph in question be re-inserted at page 12, at line 33. The paragraph in question was clearly present in the PCT national stage application as originally filed (see page 12, the last paragraph of the specification of the PCT application). Therefore, entry of this specification amendment is respectfully requested.

#### **D. THE CLAIMS ARE DEFINITE**

The rejection of claim 25 under 35 USC §112, second paragraph has been mooted by including in amended dependent claim 25 the phrase "the second communications resources include a second frequency range". The subject matter of this phrase is already supported by dependent claim 21, which depends from the same base claim. Therefore, the rejection is rectified without introducing new issues.

## **E. PATENTABILITY OF THE CLAIMS**

Claims 1-49 stand rejected under 35 USC §103(a) as being unpatentable over U.S. Patent 5,732,076 to Ketseoglou et al in view of U.S. Patent 5,793,759 to Rakib et al. All prior art rejections are respectfully traversed for at least the following reasons.

Applicants again submit that the pending claims are patentable for reasons including those articulated in their April 24, 2008 remarks, all of which are incorporated and realleged herein. In addition, in support of patentability of the pending claims Applicants present the further remarks which appear below.

U.S. Patent 5,732,076 to Ketseoglou shows, in Fig. 26, two types of frames (time frame #1 and time frame #2), and further creates a “composite time frame”. Time gaps are inserted so that an integral number of each time frames fit within the composite time frame (col. 24, lines 9 et. seq). For the example of Fig. 26, two of the second time frames 1081 have the same duration as a single first time frame 1080 plus the time gap 1082 (col. 24, lines 18- 20). Thus, the time gap 1082 is not really a part of either second time frame 1081 or first time frame 1080, but is considered by the office action to be a part of the composite time frame.

The gap of the Ketseoglou’s composite time frame thus does not qualify as a transmission gap of a communications standard, as required by independent claim 1 (“communicating according to the first communications standard type by using a first frame structure including at least one transmission gap”); independent claim 19 (“to utilize first communications resources for communications according to a first communications standard type”...” wherein the first communications resources comprise a first frame structure including at least one transmission gap”); new independent claims 51 and 55 (“the first communications standard prescribing a first frame structure including at least one transmission gap”); and new independent claims 59 and 62

(“adaptively controlling a sharing of the first communication resources prescribed by the first communication standard with the second communications”).

Moreover, the office action properly admits that “Ketseoglou does not disclose using the at least one transmission gap (TG) for communications according to the second communication standard” (page 6, first full paragraph, of final office action).

In view of the deficiency of U.S. Patent 5,732,076 to Ketseoglou, the final office action alleges that U.S. Patent 5,793,759 to Rakib discloses using a transmission gap (TG) for communications according to a second communications standard, and further opines that it would be obvious to modify Ketseoglou with the teachings of U.S. Patent 5,793,759 to Rakib. The Advisory Action alleges that Rakib discloses using barker codes in transmission gaps.

In U.S. Patent 5,793,759 to Rakib, each frame is composed of three symbols and a gap or guardband (see col. 15, lines 2 – 5). For example, Fig. 4A of Rakib shows three symbols 62, 64, and 66 of frame FN, and gaps or guardbands symbolized by blocks 60 and 71. The guardband or gap 71 is used for synchronization and equalization purposes for the frame comprised of symbols 62, 64, 66 and guardband 71. See, e.g., col. 15, lines 66 – col. 16, lines 5.

In Rakib, a central unit CU transmits a barker code during each frame at the same time in the frame. The barker code represents a trigger to any remote unit (RU) attempting to align and marks the receive frame timing reference for that RU. See, e.g., col. 16, lines 40 – 50. According to Rakib, the alignment process is a trial and error process of adjusting a delay from the time of receipt of the barker code to the time of transmission of the same barker code by each RU back toward the central unit 70 until the delay is properly adjusted such that the re-transmitted barker codes arrives at the

central unit (CU) during the gap. As shown in Fig. 4B, vector 68 represents correct delay timing for the remote unit RU #1 at position 67 such that its barker code transmission 73 arrives in the middle of the gap 71. See, e.g., col. 16, lines 56 – 64.

Thus, what the transmission that the final office action cites as occurring in the Rakib gap is not a transmission included in the frame transmitted by the central unit, but rather re-transmission of a barker code from a remote unit, which retransmission is received during the gap.

In other words, Rakib discloses that frame alignment is achieved by alignment of timing signals transmitted by remote units to guardbands or gaps between frames (column 4, lines 49-51). However, the "gap" referred to in Rakib (see, e.g., Fig. 4A, blocks 61 and 71), as compared with symbols carrying information intended for subscribers (see Fig. 4A, blocks 62, 64, and 66), serves merely as a time delay by including random noise energy (column 17, lines 12-12) and contains "no other data" (see Abstract, lines 20-22). Obviously, such a gap does not carry any information, i.e., traffic, for the various channels of digital data to be provided to the subscribers. In other words, such a gap is not used "for communications according to the second communications standard type" which is used in Applicants' claims.

Yet further, there appears to be no basis for alleging that the Rakib barker code (re-transmitted by the remote unit) is of a second communication standard. Rather, the gap-received barker code could, at best, be considered to be part of the same communications system as to which the Rakib central unit frame belongs. There is nothing in Rakib which would suggest that the re-transmitted barker codes be of a different communication system than that of the central unit which generated the central frame, and certainly nothing in Rakib that would suggest that the re-transmitted barker

codes be of a different communication standard than what is used otherwise used by Rakib.

Thus, the combination of U.S. Patent 5,732,076 to Ketseoglou and U.S. Patent 5,793,759 to Rakib fail to teach or suggest applicants' claim limitation of "wherein the communications environment is adapted to control the use of the at least one transmission gap for communications according to the second communications standard type" (independent claim 1); "wherein the communications environment is adapted to control the use of the at least one transmission gap for communications according to the second communications standard type" (independent claim 19); "using the at least one transmission gap prescribed by the first communications standard for transmitting at least a portion of the frame structure for the second communications" (independent claim 51) , and "using the second communications standard to control what is transmitted in the at least one transmission gap prescribed by the first communications standard" (independent claim 55).

New independent claims 59 and 62 pertain to the adaptive control of a sharing of the first communication resources prescribed by the first communication standard with the second communications. The new adaptive control claims are supported, e.g., by page 30 *et. seq* of the specification. The applied references do not appear to teach adaptive control of a sharing of one standardized communications resource with another standardized communications system. Dependent claim 61 specifies that the sharing based on a number of allocated and/or requested communications resources for the first communications and the second communications.

## **F. MISCELLANEOUS**

In view of the foregoing and other considerations, all claims are deemed in condition for allowance. A formal indication of allowability is earnestly solicited.

The Commissioner is authorized to charge the undersigned's deposit account #14-1140 in whatever amount is necessary for entry of these papers and the continued pendency of the captioned application.

Should the Examiner feel that an interview with the undersigned would facilitate allowance of this application, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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